DOCUMENT RESUME

ED 416 725 HE 030 771

TITLE	Looking to the New Millennium: New Jersey's Plan for Higher Education.
INSTITUTION	New Jersey State Commission on Higher Education.
PUB DATE	1996-10-00
NOTE	48p.
PUB TYPE	Legal/Legislative/Regulatory Materials (090)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Allied Health Occupations Education; Citizenship Education; *Cost Effectiveness; Cultural Pluralism; Economic Development; Education Work Relationship; *Educational Planning; Educational Policy; Elementary Secondary Education; Environmental Education; Faculty Development; Financial Support; Graduate Study; Health Needs; *Higher Education; Multicultural Education; Postsecondary Education; Productivity; Resource Allocation; State Boards of Education; *Statewide Planning
IDENTIFIERS	*New Jersey

ABSTRACT

This document presents policy recommendations for higher education planning in New Jersey, in light of the New Jersey Higher Education Restructuring Act of 1994. It articulates a vision and characteristics of excellence to inspire future action, coupled with broad policy recommendations to guide institutions and state policymakers in their planning. The recommendations focus on six critical issues in higher education planning: (1) effective and efficient use of public resources, including capacity of the system, flexibility and productivity, effective delivery of services, Tuition Aid Grant distribution, transfer and articulation, and accelerated student learning; (2) education and workforce training, including K-12 education, undergraduate and graduate education, research and scholarship, continuing education, workforce needs, graduation and transfer rates, and academic support for diverse needs; (3) economic growth, including research funding and urban revitalization; (4) community civility, including diversity and enhancing the state's social health; (5) environment, including environmental preservation and developing environmental talent; and (6) health care, including medical and allied health programs, preventive health care, and substance abuse prevention. The document also outlines essential conditions for achieving these recommendations. (MDM)

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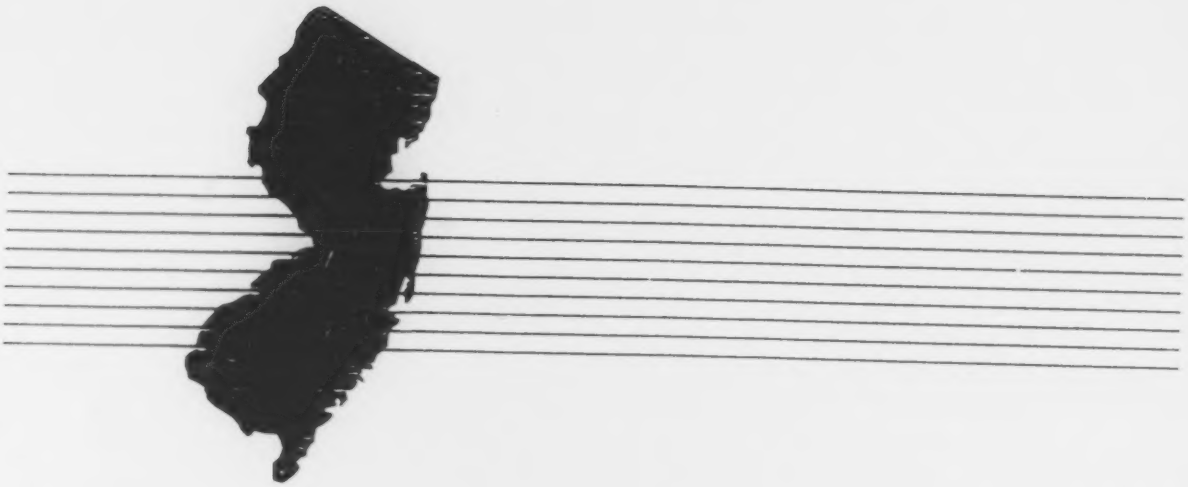

Looking to the
New Millennium:

New Jersey's Plan for Higher Education

October 1996

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Looking to the New Millennium:

New Jersey's Plan for Higher Education

Adopted by
the New Jersey Commission
on Higher Education

October 1996

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County College of Morris

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FOREWORD

The Higher Education Restructuring Act of 1994 established a new structure for coordinating higher education in New Jersey. The structure consists of three principal components:

- preexisting institutional boards of trustees, which now have increased autonomy, are responsible for fulfilling the mission of their institution while remaining cognizant of the importance of effective coordination to achieve statewide goals;
- the Presidents' Council, a new entity consisting of presidents from across the system, is responsible for reviewing, commenting, advising, and recommending on matters affecting higher education, including assistance in developing and updating a plan for higher education; and
- the Commission on Higher Education, which replaced the previous Board of Higher Education and is much less regulatory, is responsible for statewide policy, planning, and advocacy, including a specific mandate to conduct research on higher education and develop a comprehensive master plan.

The marriage of institutional autonomy with statewide coordination provides an appropriate framework for a dynamic higher education system.

The structure was designed in this fashion to eliminate unnecessary state oversight and to encourage creativity and innovation at the colleges and universities within a coordinated state system. The marriage of institutional autonomy with statewide coordination provides an appropriate framework for a dynamic higher education system that includes various types of institutions with clearly differentiated missions.

The student assistance component of higher education is administered by a separate entity, the Office of Student Assistance. The New Jersey Higher Education Assistance Authority and the Student Assistance Board continue to oversee state student assistance programs, with the exception of the Educational Opportunity Fund Program, which is within the Commission on Higher Education.

Within this context, the Commission on Higher Education initiated the development of a long-range plan for New Jersey higher education in consultation with the Presidents' Council.

Recognizing the need for a comprehensive planning process, the Commission appointed a 20-member Steering Committee composed of Commission members (including three from institutional trustee boards), Commission staff, and institutional presidents from all sectors. After significant deliberation regarding critical state needs and the environment in which higher education will operate in the years ahead, the Steering Committee developed a draft vision statement and recommendations for higher education. The draft document was disseminated, and broad public input was invited. Over 100 individuals, some representing organizations, presented public testimony or provided written or oral comments. In addition, small group meetings were held with various constituencies to discuss specific aspects of the document. The testimony and subsequent dialogue were particularly beneficial and guided the further development of the plan for submission to the Presidents' Council and the full Commission for consideration.

The plan goes beyond the needs of institutions to focus on ways in which higher education can be more responsive to the needs of students and society.

After reviewing the document, receiving additional input from the higher education community, and making final revisions, the Commission formally adopted *Looking to the New Millennium: New Jersey's Plan for Higher Education* in October 1996. With this plan, which will be refined and updated regularly, the new tripartite coordinating structure establishes a shared vision of excellence for the state's higher education system into the 21st century.

Although often referred to as a master plan, *New Jersey's Plan for Higher Education* does not include highly prescriptive recommendations. Rather, it articulates a vision and characteristics of excellence to inspire future action, coupled with broad policy recommendations to guide institutions and state policy makers in their planning. The plan goes beyond the needs of institutions to focus on ways in which higher education can be more responsive to the needs of students and society. The recommendations recognize the need to establish a correspondence between the state's ambitions for higher education and the resources necessary for their achievement. *New Jersey's Plan for Higher Education* asserts two imperatives: the state must provide adequate and stable funding so that institutions can live up to their potential in serving students and society, and the state and institutions must make prudent choices to ensure quality with finite resources.

VISION FOR HIGHER EDUCATION

The vision for New Jersey higher education and the related characteristics of an excellent higher education system which follow reflect a set of ideals to guide state policy and institutional decision making into the 21st century. Both the vision and the characteristics derive from societal needs for higher education and assumptions about the future. Realization of the ideals reflected here will require a continuing commitment and intensified effort by the higher education community, as well as support from state policy makers.

New Jersey's system of higher education aspires to be among the best in the world, embracing excellence, access, and affordability. The quality of the state's public and independent colleges and universities will serve as a magnet to attract both resident and nonresident students and highly qualified faculty. Institutions will model tolerance and civility, celebrating the diversity that creates rich learning environments. A major force in developing the full potential of New Jersey and its people, higher education will serve all residents who have the interest and potential to learn, regardless of their economic circumstances.

The state's higher education system will develop and nurture the citizens and leaders of the future, preparing individuals for fulfilling lives, rewarding careers, and lifelong learning. Technology will strengthen the system and improve access, efficiency, and program effectiveness into the 21st century and beyond. Through teaching, research, and public service, colleges and universities will support the state's public policy goals of economic growth, social stability, and enhanced quality of life. New Jersey will value and support its investment in higher education, and institutions will seek innovative, collaborative approaches to meet the challenges ahead, committed to serving a globally competitive society.

CHARACTERISTICS OF EXCELLENCE

Any outstanding system of higher education is guided by characteristics of excellence to which the system and member institutions continuously aspire. Such a system:

Recognizes that the fundamental purpose of higher education is to better humankind — morally, intellectually, physically, and materially — and to educate leaders for a diverse and complex society;

Places teaching and learning at the core of its mission, preparing individuals for fulfilling lives, rewarding careers, and lifelong learning;

Conducts both basic and applied research to enhance teaching and learning, increase knowledge, and improve the quality of life at the local, state, national, and international levels;

Embraces academic freedom, employing and supporting faculty of the highest quality who seek and transmit knowledge, free of inappropriate influence from institutions, church, state, or special interests;

Consists of institutions with clearly differentiated missions that provide excellent and diverse opportunities to meet the needs of students, the state, and society;

Provides an array of higher education programs;

Permits a smooth transition between institutions;

Provides coordination within the context of a statewide plan;

Utilizes resources responsibly and efficiently to support various types of institutions, acknowledging sectoral diversity and capitalizing on the advantages of collaboration, cooperation, and resource sharing;

Provides financial assistance commensurate with financial need to enable access for all students who can benefit;

Seeks to expand educational opportunity, particularly for those students who are from underserved populations;

Uses and advances technology to enhance the communication of ideas and improve access and efficiency of program delivery;

Advances the cultural richness of the higher education community and society as a whole;

Collaborates with elementary and secondary education, business and industry, and other public and private entities to meet the educational needs of society efficiently and effectively;

Engages in, enlists, and coordinates broad-based advocacy that communicates higher education's contributions to the state, demonstrating the benefits of long-term investments in higher education;

Monitors its operations through continuous planning and evaluation, remaining open to change in a competitive and complex world; and

Ensures an appropriate relationship between institutional autonomy and accountability.

New Jersey's system of higher education already reflects many of these characteristics and seeks to embrace and exemplify them fully in its continuing quest for excellence.

CONTEXT

New Jersey is the ninth most populous state in the nation, with 7.9 million residents in 1995. The urban areas in the northeastern part of the state are the most densely populated, while the population is relatively sparse in the rural counties of the northwest and south.

The state's population is racially and ethnically diverse, with substantial variations in the composition of various regions. Statewide, 13% of the population is African American, 9% is of Hispanic origin, and 7.2% is other races, primarily Asian. Twenty-five percent of the population lives in households where English is not the primary language, reflecting the large immigrant population in New Jersey.

With respect to the state's labor force, distribution among the various industrial sectors is not dramatically different from the national profile. New Jersey has more nondurable manufacturing (such as pharmaceuticals) and less durable manufacturing than the nation as a whole. The state also has more workers in finance, insurance, and real estate. New Jersey has more scientists and engineers per capita than any other state and is an international leader in corporate research and development. Overall, the state has higher-than-average concentrations of workers in executive, administrative, managerial, and administrative support occupations, and a lower-than-average concentration of workers in service occupations (other than private household and protective services).

According to a recent study, New Jerseyans are more likely to enter college by age 19 than their counterparts nationally. However, 38% of undergraduate students, primarily the more affluent and well-prepared, leave New Jersey to attend college in other states, and the proportion of students who enter New Jersey institutions from other states constitutes only 9% of the state's undergraduate population. This long-standing pattern of inmigration and outmigration has not had a negative impact on the educational level of the populace; 30% of New Jerseyans have at least an associate degree and 25% have at least a baccalaureate degree, a higher-than-average level of post-secondary educational attainment.

Despite the level of postsecondary educational attainment, a recent survey indicates that 1.4 million of the six million adults in the

state score at the lowest literacy level, and 23% of the state's residents over age 24 lack a high school diploma or general equivalency diploma. The state's wide diversity in educational levels is reflected, as it is nationally, in a growing income gap between the rich and poor. Income levels and educational attainment in New Jersey are closely linked, and they vary substantially by county, with the lowest levels of income and education concentrated in the rural and urban areas of the state.

New Jersey produces fewer degrees relative to population size than other states and the national average. This is partly due to the relatively small size of New Jersey's higher education system (in terms of both the number of students and faculty, and the number of institutions), and partly due to the state's high outmigration rate and low rate of inmigration.

New Jersey's higher education system consists of 56 institutions, including 19 community colleges; eight state colleges and one university; three public research universities; and independent institutions, including 14 four-year colleges and universities with a public mission, three degree-granting proprietary schools, and eight theological institutions. In fiscal year 1996, the annual state budget for higher education totaled $1.4 billion. However, because of competing demands for limited state resources in New Jersey and across the nation over the past seven years, funding for higher education has not kept pace with rising costs.

In fall 1995, New Jersey higher education institutions enrolled a total of 333,000 credit-seeking students, of whom 284,000 were undergraduate students and 49,000 were graduate students. Approximately 9,400 full-time faculty teach at the state's colleges and universities, assisted by a large number of adjuncts, part-time faculty, and teaching assistants.

New Jersey's system of higher education is a valuable resource that helps the state to achieve social and economic goals and enhance the quality of life for New Jersey citizens.

New Jersey's system of higher education is a valuable resource that helps the state to achieve social and economic goals and enhance the quality of life for New Jersey citizens. It is therefore essential to link statewide policy goals with an innovative, effective system of colleges and universities.

The primary objective of the plan for higher education is to promote excellence, access, and affordability in the most cost-

efficient ways possible. The institutions collectively must meet the varying needs of a diverse citizenry for undergraduate education and workforce training, prepare graduate and professional students for leadership in their chosen careers, address critical needs through public service, and extend the frontiers of knowledge through research, sharing the fruits of discoveries to the benefit of society. To achieve the necessary balance of services, there must be adequate support for institutions of various types — community colleges, independent colleges and universities, public four-year colleges and universities, and research universities. Without clearly established institutional roles, available resources for the system may be spread too thin, and the resources necessary to ensure excellence will be diluted.

A periodic review of the implementation of the recommendations will track progress and allow for further development and refinement as needed.

The degree to which an institution fulfills its mission and meets its objectives is a measure of excellence. Therefore, it is essential that each institution establish a distinctive mission and focus its resources selectively on achieving that mission. The strategies necessary to achieve objectives can be discerned best by each institution when its governing board is clear about which programs are essential to the institution's mission, what it costs to support each program, and the prospective sources of the necessary funds.

The state and its higher education system will face many challenges in the next decade. Fiscal constraints and pressure on colleges and universities to be more cost-effective will persist, as will the demands of the marketplace. In order to thrive, institutions will have to respond to societal and economic needs more effectively and efficiently than ever. While rigorous institutional reexamination and reorganization are essential, they are no more essential than the need for a commitment on the part of the state to provide resources sufficient to support an excellent system of higher education.

The following recommendations provide a set of broad policy guidelines based on assumptions about the future, societal needs, and the vision for higher education. As such, the plan differs from past detailed operating plans and is more strategic, pointing out specific areas that must be addressed and establishing a framework to address them. The recommendations are organized in two sections — recommendations for higher education related to critical state issues and essential conditions for achieving the vision for

higher education.

A periodic review of the implementation of the recommendations will track progress and allow for further development and refinement as needed. Some of the recommendations will be addressed initially by the Commission, the Presidents' Council, special committees, and other entities. Some may lead to legislation or require allocation of resources by the Governor and Legislature. Ultimately, however, the strategic implementation of many of the recommendations rests with boards of trustees and members of each college or university community. The plan, therefore, is a beginning. It sets the direction and the focus to achieve the vision set forth for higher education.

RECOMMENDATIONS FOR HIGHER EDUCATION

New Jersey faces critical issues over the next five to ten years that must be addressed through a concerted effort by state government and other organizations and entities, including the state's higher education institutions. Therefore, such issues are central to the state's plan for higher education.

The most critical issues facing the state were identified by several means: responses from three focus groups conducted by the Eagleton Institute and composed of community and business leaders; interviews with legislators; survey responses from state agency heads; and a review of two 1993 issue surveys. The recommendations for higher education that follow are related to the six issues on which there was the greatest convergence of opinion. The issues are efficient and effective use of public resources, education and workforce training, economic growth, community civility, environment, and health/health care.

New Jersey's higher education institutions offer a myriad of programs and services to meet New Jersey's most critical needs. With appropriate resources and coordination, higher education in New Jersey can continue to provide substantial help to the state in addressing these issues and achieving the state's policy goals. Each institution and sector should contribute what it can do best; it is neither practical nor prudent for every institution or sector to contribute equally to the solution of every challenge facing the state. Institutional boards of trustees must determine, within the context of their distinctive missions, how best to contribute, collaborating with other institutions where appropriate.

CRITICAL ISSUE ONE:
EFFICIENT AND EFFECTIVE USE OF RESOURCES

Finite public resources require effective and efficient governmental operations and educational services. Local and state government, schools, and colleges must better serve their constituencies with limited additional resources. Further, resources must be used equitably across the state, ensuring that all areas of the state have access to services.

Capacity of the System

Based on demographic data, demand for higher education will grow steadily but moderately in New Jersey. While limited growth is expected in the number of 15-24-year-olds, the number of high school graduates is expected to increase by about 1% a year between 1995

and the year 2005, adding approximately 12,000 graduates a year by 2005 to the approximately 86,000 current annual high school graduates. The rate of increase will be similar to the average increase projected for the nation. At the same time, the 25-39-year-old age group will decrease by over 23%, and the 40-59-year-old group will grow by nearly 40%, affecting the large number of nontraditional students (e.g., older, working adults).

In order to ensure an excellent system of higher education that meets state needs, it is necessary to analyze current and projected needs across the state in relation to services available. The locations of New Jersey's institutions do not correspond with student demand in all cases. Analysis of needs must consider both student and labor demands as well as regional diversity in population, income levels, and educational attainment. Where possible, there should be cooperative sharing of resources between higher education and libraries, proprietary schools, and secondary schools. The analysis should also consider whether New Jersey needs additional educational options in order to retain more of its high achieving students and attract similar students from out of state.

The Higher Education Restructuring Act of 1994 specified that the master plan should determine if there is a need to establish new institutions, close existing institutions, or consolidate institutions. The analysis of current and projected needs across the state in relation to the establishment, closure, or consolidation of institutions requires careful and considered examination that is beyond the scope of this plan. It is more appropriately undertaken as a separately focused study that will inform ongoing planning.

The Commission should appoint a blue-ribbon task force to develop recommendations on the establishment, expansion, closure, or consolidation of institutions. The task force should study the size and structure of the New Jersey higher education system and its capacity to meet the needs of the state, recognizing the diverse needs of the population. Information on programs by level and location in relation to need and resources available for postsecondary education should be considered.

The task force should consist of members who bring a breadth of experience and perspective to assess the relevant data and who are free from self-interest in the outcome of the study. Under the auspices of the Commission, the task force may employ consultants to assist in their work and confer broadly with higher education constituencies. The task force should be guided by the need to provide high-quality programs statewide and to preserve

differentiated institutional missions and utilize resources responsibly, capitalizing on collaboration, cooperation, new technologies, and resource sharing. The task force study should allow for a public discussion of the issues and values surrounding the delivery of higher education in New Jersey.

The findings and recommendations of the task force should be delivered to the Commission by November 1997 for the Commission's consideration and action.

Flexibility and Productivity

The public has very high expectations of colleges and universities. They want institutions to demonstrate real learning, efficient operations, commitment to economic development, and public accountability. As colleges and universities seek to change to address these concerns, they often encounter impediments.

The Commission on Higher Education will have an audit performed of major federal, state, and local regulations and laws that may be impediments to institutional flexibility. The goal is to identify changes that can improve institutional innovation and productivity while enhancing quality. Recommendations should be made to the Commission by September 1997.

Effective Delivery of Services

Political leaders, as well as accrediting associations, professional organizations, the media, and the public, continue to call for greater accountability from higher education institutions. This is particularly true with respect to cost efficiency, the quality and utility of services offered, and the competence of graduates.

In providing high-quality programs and services for students, every institution should strive for optimum use of time, facilities, and human resources. Institutional boards of trustees and administrations should continually reevaluate and where necessary,

restructure program offerings, administrative procedures, personnel procedures, and student services in order to enhance the quality of the institution in a cost-effective manner, promote student access and progress, and meet state needs.

Tuition Aid Grant (TAG) Distribution

To make higher education accessible and affordable, New Jersey currently (FY 1997) budgets almost $168 million for direct assistance to undergraduate students; approximately $158 million of it is distributed on the basis of a student's financial need and more than $9 million is provided through merit awards. The primary assistance mechanism is the Tuition Aid Grant (TAG) program, which provides need-based assistance to over 60,000 state residents who are full-time students at New Jersey institutions of higher education. The program is considered a national model for need-based state student financial assistance. However, TAG program expenditures have increased rapidly, from $75 million in fiscal year 1991 to $138 million in fiscal year 1997, as a result of both increased public and private tuition and increased enrollment of eligible students. Moreover, the TAG program does not address the potential needs of the approximately 45% of the state's student population who are part-time students. Because full-time attendance may not be possible for even greater numbers of residents in the future, additional needs, including those of welfare recipients under the planned block grants, may go unmet.

State dollars dedicated to student assistance must be used effectively to assist eligible students who are committed to furthering their education. However, in light of limited resources and other demands on the state budget, it is unlikely that the TAG program can continue to increase at an annual rate of almost 11%. Even if such increases were likely, other current and emerging needs may not be met.

Future funding and policy decisions regarding the TAG program should be informed by data and recommendations generated by the task force currently studying the overall funding structure of TAG. The task force is addressing the overall distribution of TAG, including the appropriate levels of TAG awards for students, the advantages and disadvantages of extending TAG to part-time students, and the appropriate level of funding for TAG. Any changes in the TAG program should consider the economic impact on current grant recipients and the potential impact on the financial health and well-being of existing institutions.

Transfer and Articulation

The ability to transfer credits from one institution to another is a matter of particular importance to students and the state because it saves both money and time and eliminates unnecessary duplication and repetition of courses. The Presidents' Council encourages interinstitutional articulation of programs and transfer of credits among colleges and universities, and is developing criteria for "full faith and credit" transfer agreements between community colleges and senior institutions of higher education. Increased partnerships and collaborations are encouraged in various areas; however, from a public policy perspective, improved articulation and agreements that allow for a smooth, productive transfer of students from community colleges to senior institutions represent perhaps the most critical partnership. Enhanced transfer agreements can affect cost, time to degree, graduation rates, and outmigration.

As it develops criteria for full faith and credit transfer agreements between community colleges and senior institutions of higher education, the Presidents' Council should strive for a seamless transition from associate to baccalaureate degree programs. In pursuit of this objective, the Presidents' Council should establish a task force to review thoroughly the current status of transfer articulation and joint admissions. The task force should make recommendations by June 1997 to enhance articulation and transfer agreements and eliminate disincentives. Recommendations should include the development of a computerized system to provide immediate access to up-to-date information on the transferability of courses and programs between and among New Jersey institutions of higher education.

Accelerated Student Learning

Accelerated student learning before and during college makes better use of time and reduces the cost of college. When the opportunity is provided, many students can take college course work while in high school. Advances in the use of technology to deliver courses to high school students further improve opportunities. In addition, the number of high school students successfully passing Advanced Placement examinations has significantly increased nationally. The availability of required courses, accurate and timely counseling, and the ability to acquire credits by examination all impact students' time to degree.

Colleges and universities should increase opportunities for high school students to take college-level courses and to acquire college credit, and students should be encouraged to do so. The potential of technology for delivering courses to high school students should be aggressively explored.

Colleges and universities should ensure that required courses are available for students to complete degrees in a timely manner, that students are accurately counseled regarding degree requirements, and that there are opportunities for students to acquire credits for graduation by examination.

Institutions should review degree requirements and courses for redundancies in an effort to shorten time to degree.

CRITICAL ISSUE TWO: EDUCATION AND WORKFORCE TRAINING

Improved educational programs, preschool to the graduate level, and preparation in the use of technology are essential to adequately prepare individuals for responsible citizenship and the workforce of the future. Higher education should equip students to adapt to change and develop higher-order thinking and problem solving skills to meet the needs of a dramatically changing work place in a high-technology, global economy. Effective education and workforce training are necessary to combat unemployment and underemployment, which block a significant portion of the population from the economic process and jeopardize the state's social and political stability. Early childhood and parenting education and the education of nontraditional students are among the priorities.

Employment growth in New Jersey through 2005 is expected to be slower than that of the nation, continuing a long-term trend. Growth of about 14%, or 509,000 jobs, is expected to occur between 1990 and 2005. Females and minorities are expected to fill most of those

jobs, which will likely be concentrated in the service-producing sector where extended preparation, often at the baccalaureate level, is required.

A higher level of education has a direct economic benefit for workers. According to 1990 U.S. census data for New Jersey, those with an associate degree earn 19% more than those with only a high school diploma; those with a bachelor's degree earn 69% more. Those with a professional degree earn 223% more, and those with a doctoral degree earn 143% more..

New Jersey's higher education institutions prepare students for well-paying jobs in a competitive economy. By providing opportunities to develop higher-order thinking, problem solving, and communications skills, as well as a wide range of occupational and professional skills, the system prepares graduates in various fields.

In addition to academic preparation offered by all institutions, the community colleges, degree-granting proprietary schools, and some senior institutions also provide a wide range of job training and retraining programs, including customized and contract training designed to meet the needs of a specific employer. The New Jersey Department of Labor depends on customized training offered by the community college system to help support its Workforce Development Partnership program. Special programs for unemployed/underemployed workers also are offered, such as short-term intensive certificate programs in specific labor demand occupations. To meet the needs of academically disadvantaged students, the state provides special support through the Educational Opportunity Fund, English as a Second Language services, literacy and basic skills programs, and programs for students with special needs. To accommodate the needs of working adults, many of these programs are offered at night and on weekends. Some institutions also provide child care.

Institutions in all sectors work with business and industry in an effort to help their program offerings better match the needs and standards of employers. A number of community colleges and proprietary schools work closely with high schools and area businesses in school-to-work programs that link school- and work-based learning

experiences. The community colleges also work with the Departments of Labor and Commerce, as well as the private sector organizations, to develop multi-county training programs for industries that are targeted for location or expansion in New Jersey. Many institutions, particularly the community colleges and proprietary schools, are active participants in county-based Workforce Investment Boards (WIBs), which match local training programs with labor market demand. Institutions in all sectors offer internships, which provide on-the-job training for participating students.

A number of senior institutions focus on the preparation and continuing professional development of K-12 teachers. Innovative programs at several institutions are geared toward the simultaneous renewal of public schools and teacher education programs. Many institutions work directly with K-12 schools in an effort to support and strengthen urban, as well as rural and suburban, schools. In addition, they provide numerous opportunities for high school students to participate in educational and cultural programs on campus.

Foundations for an Educated Populace: K-12 Education

The National Governor's Association has recently identified educational reform as the second most important policy goal facing the nation. Individuals and the workforce are best served by a balanced and well-articulated education system, preschool through graduate school. There are currently hundreds of examples of collaboration and articulation between New Jersey elementary and secondary schools and higher education institutions. Many institutions work directly with schools. "Tech Prep" or "2+2" programs, as well as New Jersey's Youth Transitions-to-Work and federal School-to-Work projects, link community and four-year colleges with comprehensive and vocational high schools to provide a seamless, career-focused curriculum that retains students and assists them in continuing their education. It is important to New Jersey's economic vitality that as many students as possible be retained in high school, learn the foundational skills that employers want, and then continue into the higher education system.

Development of higher-order thinking, problem solving, and communications skills must begin at the elementary and secondary level, where schools place increasing emphasis on student results with the implementation of core curriculum standards and new methods to assess performance. The New Jersey State Board of Education recently adopted core

curriculum standards, developed with significant input from the higher education community, to raise expectations for students and better prepare individuals to pursue careers and further education.

In light of the importance of elementary and secondary education in preparing future higher education students, the workforce, and an educated citizenry, collaboration between the K-12 and higher education communities should be enhanced. Specifically, the Commission on Higher Education should work with the Department of Education, and higher education institutions should work with K-12 districts/schools, to focus on raising expectations and student achievement and to ensure simultaneous renewal of teacher training programs, professional development, curricula, and instructional practices. Early childhood and parenting education also should be a priority for collaborative efforts.

Higher education institutions should continue to make reform of teacher education and professional development a priority.

Undergraduate Education

High-quality undergraduate education is a core mission of colleges and universities. It contributes significantly to New Jersey's future economic and social well-being, preparing well-rounded, culturally aware individuals for citizenship, the workforce, and future academic pursuits.

Colleges and universities and their boards of trustees are encouraged to improve undergraduate education by focusing on the objective of preparing students broadly for life's challenges. In addition to career preparation, college students should gain an understanding of historical, philosophical, cultural, and political perspectives that foster respect for other peoples and times and heighten their sense of social responsibility. They should also enhance their ability to communicate clearly and act independently. The development of critical thinking and problem

solving skills, as well as sophistication in the use of technology, is essential in preparing students to become lifelong learners, ready for the challenges of a diverse, global society and economy.

Institutions should continue research and scholarship on teaching and learning to enhance undergraduate programs and increase sound practices.

Authorities widely agree that academic advising is a powerful tool for improving students' success in college. High-quality advising correlates with increases in students' self-esteem, satisfaction with college, and persistence in school.

Each institutional board of trustees should examine the undergraduate advising process to address students' developmental needs, providing opportunities for out-of-class contact between students and faculty and personalized guidance for negotiating a new and complex culture, achieving self-understanding, and planning one's future course of action.

Graduate Education

Graduate and professional education are part of the core missions of some colleges and universities. Their postbaccalaureate programs prepare talented students for professions and careers in industry, academe, and public service. High-quality graduate and professional education must progress over time, embodying certain values, priorities, and ways of defining excellence that are embraced nationally and internationally. Programs that do not achieve these broadly accepted norms largely fail to provide the knowledge, background, and experience that gives holders of advanced degrees their claim to special competence. Consequently, growth and further development of postbaccalaureate education, particularly doctoral and first-professional degree programs, must be carefully considered as to need and quality to ensure they meet the standards generally expected of graduate education programs.

New Jersey should continue to pursue excellence in graduate education. Nevertheless, new postbaccalaureate offerings, par-

ticularly doctoral and first-professional degree programs, should be undertaken only after careful consideration by boards of trustees (and the Presidents' Council and Commission where appropriate) of the resources required to ensure high quality, and only when a demonstrated need exists. Before adding graduate degrees, institutions should examine opportunities for collaboration/cooperation.

Research and Scholarship

Education flourishes from both teaching and research. Not only must we generate new knowledge; we must also integrate knowledge across disciplines and seek patterns that connect knowledge across traditional disciplinary boundaries. Beyond the discovery and integration of knowledge, higher education must also recognize the importance of applying knowledge to problems of consequence. Given the enormous pool of talent and expertise within our higher education faculty, the higher education community, especially within the public sector, cannot ignore the problems of the larger world. Finally, we must evolve new understandings of teaching as a scholarly enterprise.

Institutional boards of trustees should encourage not only the discovery of knowledge, but also the integration, application, and teaching of knowledge as critical to the success of the higher education system. They should develop a system of reward that is consistent with the need for a broader understanding of scholarship.

Continuing Education

Higher education institutions must respond to the increasing demands of the work place, producing graduates who are prepared to pursue lifelong learning and challenging careers, while accepting their civic responsibility as contributors to their communities. As technology advances, the workforce also will need continuous retraining. In addition to providing well-prepared graduates, higher education institutions must provide training and retraining programs that meet the needs of employers and workers. To meet this challenge, colleges and universities will have to keep pace with rapidly changing work place technologies.

Institutions will serve more nontraditional students, including those who return to college for educational development throughout their careers, senior citizens, and others pursuing lifelong learning. While New Jersey colleges and universities provide a wide range of continuing education, professional development, and training and retraining programs, a 1995 survey of New Jersey employers conducted by the Eagleton Institute of Politics and the Bloustein School of Planning and Public Policy indicated that, overall, the higher education system should be more responsive to the needs of employers in this area.

Institutional and systemwide planning should include the delivery of accessible, affordable, continuing higher education courses at both the undergraduate and graduate level, including courses to upgrade job skills and enhance general knowledge. Flexible scheduling of both classes and student services and alternative instructional delivery modes should be increasingly available.

To better meet the state's needs for entry-level workers, higher education institutions should increase their focus on the skills and personal qualities most valued by employers, as well as those needed to fulfill students' civic responsibilities, and should enhance opportunities for experience-based learning such as internships.

The Commission on Higher Education and institutions should provide more information to employers about how higher education can address their needs. To better meet employers' needs for training and retraining programs, institutions should seek the advice of employers to assist faculty in designing programs and curricula that are responsive to employers' specific needs. Additionally, institutions should explore whether employers need student information beyond the college transcript.

Meeting Workforce Needs

Rapidly changing demands create a challenge for higher education to meet workforce needs effectively. Surpluses and shortages within the labor market are difficult to respond to in a timely fashion with the appropriate number of well-prepared college graduates (or trained personnel). Newly organized Workforce Investment Boards are charged with assessing the labor market and developing a local strategy to optimize state and local workforce readiness programs.

In order to meet higher education workforce development needs in all areas of the state and levels of the workforce, current and proposed degree and certificate programs, including graduate and professional degree programs, should be evaluated by boards of trustees in relation to projected labor demands and regional needs. Programs should be phased out when appropriate, and new programs should be established only when program quality and student demand or the need for graduates are demonstrated.

Institutions that deliver workforce preparation should ensure that courses meet employer needs to provide college students with greater opportunities. Efforts should also be made to integrate research results into the curriculum. As new processes and technologies are adopted by New Jersey businesses, institutions should develop courses to train technicians to operate, troubleshoot, and maintain the new technologies.

Graduation and Transfer Rates

There are many measures of an educational institution's success. Among the most important are the rates at which degree-seeking students graduate or transfer. Successful completion of courses may also indicate students' success.

Despite ongoing efforts by institutions and the state, graduation rates for all students are lower than desired, but equal access to and success in higher education for New Jersey's lowest income students, underprepared students, and minorities are particularly elusive, as is the case across the nation. Performance indicators in these areas provide partial evidence of some success in fulfilling important state goals. Nevertheless, data indicate significant differences between graduation rates for degree-seeking minority students and those for white students in all sectors. For example, six-year graduation rates at the senior public institutions for African Americans and Hispanics are 20 percentage points lower than for whites and Asians. The three-year graduation rate at community colleges is similarly lower for African Americans and Hispanics. Graduation rates are also lower for students from the lowest income brackets.

Increasing graduation and transfer rates for students seeking degrees or certificates, particularly for minority students and

economically disadvantaged students, should be a statewide priority. Additional funding should be appropriated for institutional incentive programs to improve graduation and transfer rates for both minority and economically disadvantaged students. The Commission and Presidents' Council should establish a committee to recommend an incentive funding program that focuses on improved graduation and transfer rates for these students as well as on the quality of the preparation/ education they receive.

Academic Support for Diverse Needs

New Jersey provides support for a number of programs to meet the needs of a diverse student body. The Educational Opportunity Fund, English as a Second Language programs, and special support for students with literacy and basic skills deficiencies, as well as special services for students with physical or learning disabilities, are integral to serving all students who can benefit from higher education.

Serving Educationally and Economically Disadvantaged Students

The Educational Opportunity Fund (EOF) program is dedicated specifically to ensuring that students from educationally and economically disadvantaged backgrounds have true educational opportunity. The program provides financial aid as well as academic enrichment, counseling, and developmental services. EOF also provides summer programs and leadership training activities, and supports campus efforts to recruit students eligible to participate in the program.

Over 13,000 students are currently assisted through EOF, which provides $31 million in state funds in fiscal year 1997. It is essential that the state dollars dedicated to EOF be used effectively to assist eligible students who are committed to furthering their education. Also, it is important that the mission of the program be clearly articulated and effectively pursued and that institutional commitment to the program be a priority.

The EOF Board of Directors should develop a clearly articulated mission statement for the statewide program that takes into account assumptions about the future and critical state needs.

Each participating college and university, within its distinct mission, should embrace and enhance the EOF program as an integral part of the institution, providing sufficient institutional resources to complement state funds.

The EOF Board, in consultation with the Commission, the Presidents' Council, and representatives of the higher education community, should establish a five-year strategic plan for EOF. The plan should include minimum group expectations for the academic progress of EOF students at each college and university. An institution that falls below its benchmark should develop and implement a plan for improvement, building on successful programs at other institutions where possible.

The Commission, in collaboration with the EOF Board and professional association and institutions involved in precollege programs, should investigate and implement ways to develop stronger linkages between EOF and federal and state-funded precollege efforts such as Upward Bound and College Bound.

Support for Students with Limited English Proficiency

As New Jersey's population expands, it will be increasingly diverse, partly due to a continuing stream of immigrants. This presents a special challenge to educational institutions at all levels to provide programs and services for the large numbers of students whose first language is other than English. The Commission's 1995 English as a Second Language (ESL) program survey revealed growing numbers of ESL students from various language backgrounds and limited institutional staff to serve them. Higher education should accept the responsibility for providing intensive and effective ESL programs for students who need such instruction.

In order to ensure access and effective delivery of services, the needs of the growing ESL student population should be considered as boards of trustees and institutional leadership plan for the future. Varying approaches to serving the needs of ESL students should be enhanced,

consistent with differentiated institutional missions and student populations. Successful approaches to assessment and instruction should be shared and replicated as appropriate.

In addition, the Commission on Higher Education should work closely with the Council on Education of Language Minority Students (CELMS) to develop a comprehensive and coordinated approach to state higher education policy for language minority student programs that will efficiently and effectively meet the needs of the ESL student population.

Literacy and Remediation

Illiteracy is a problem across the state, as well as across the nation, despite the fact that state, federal, and private agencies have various programs in place to provide basic literacy skills training. The most recent State Adult Literacy survey indicates that 1.4 million adult New Jerseyans score at the lowest literacy level. While many of these individuals have basic reading skills, they are unable to synthesize complex information or perform quantitative tasks beyond simple math. Stemming illiteracy among young and older adults is a critical component in addressing the widening gap between the "haves" and the "have nots" that threatens the stability of the state.

Over one-third of all students entering the state's public colleges and universities lack proficiency in reading or writing and/or in math computation; over half are lacking in elementary algebra. Students who are moderately underprepared can often address their remediation needs in a semester or two while pursuing a postsecondary degree. There are others, however, who need more basic literacy preparation, which often requires a longer period of time. The state's new core curriculum standards and related assessments for public schools are expected to help address this problem as it pertains to future high school graduates. Those students who return to school after a number of years or do not graduate from New Jersey high schools may still need additional preparation.

Of 53,000 students who took basic skills tests in fall 1993, approximately 8,000 required extensive remediation. These students ranked in the lower half of the remedial population in more than one of three skills areas. Of those needing extensive remediation, 36% were white, 31% were African American, and 15% were Hispanic. The individuals included adult, nontraditional students as well as recent high school

graduates; only 19% were recipients of student assistance through TAG or EOF.

Currently, literacy and basic skills training for students needing extensive remedial assistance in New Jersey are provided by colleges, adult schools, and the Departments of Labor and Human Services. The need for coordination to ascertain best practices and avoid unnecessary duplication and cost is evident.

The Commission on Higher Education in partnership with the State Employment and Training Commission should appoint a task force to examine literacy and remediation programs that serve students who need extensive basic skills training and determine how funding and/or delivery of literacy training can most effectively and efficiently be provided to serve the needs of students and the state.

Critical Issue Three: Economic Growth

Maintaining and expanding existing business, attracting new business, and having an adequate state revenue base are essential to a strong economy and the quality of life of citizens. To support business and citizen needs, New Jersey must have a well-trained workforce and an appropriate physical infrastructure, including adequate transportation and telecommunications systems. A strong economy also depends on a coordinated, reasonable regulatory environment that considers the various interests of the state.

Further, a significant aspect of economic growth is the redevelopment of the state's urban areas. Existing tracts of decay and deterioration promote crime and social disorders and create poor living and working conditions. Revitalizing these areas, with attention to safe housing and neighborhoods and to high-quality educational programs, will play a major role in attracting business, creating jobs, improving the quality of life, and addressing the profound gap between the state's wealthiest and poorest citizens.

New Jersey higher education institutions contribute to the state's economic health and growth in a number of important ways. Primarily they develop the human resources that are essential to the state's economy. From nondegree programs at the community colleges to advanced degrees at the research universities, New Jersey institutions educate citizens and prepare individuals for careers in the technological and globally competitive work place of the 21st century. Higher education's role in fostering the performing arts also impacts on economic development, particularly in urban areas.

Colleges and universities in all sectors also provide direct assistance to New Jersey businesses, helping them to prosper in a competitive economy. Most of the community colleges, as well as several state colleges and research universities, operate centers for small business development and assistance. The universities play a significant role in economic development through research, often working directly with business and industry. Support for research and technology transfer is provided by institutions, particularly the community colleges, through technical training. For every research scientist or engineer, New Jersey needs seven to ten highly skilled technicians to run machinery or processes and provide support. Credit degree programs and noncredit work place training are developed in cooperation with the businesses that need technicians.

Research Funding

Research at New Jersey institutions is vital to the state's economy, making the state a desirable place for business to locate. New Jersey corporations have a significant research structure as well. Many universities work directly with industry, producing research and discoveries with direct economic impact.

Research conducted within the university setting has been for generations an effective mode of expanding the frontiers of knowledge, stimulating economic development, and serving the nation's public policy goals in such diverse areas as defense, health care, environmental protection, food production, and the transportation infrastructure. In the recent history of New Jersey higher education, relatively small state investments in the system's research infrastructure have produced highly leveraged returns in external support dollars, and in the development of productive partnerships between industry and higher education. However, New Jersey is below the national average in research funding from the federal government, which contributes to New Jersey's low ranking (31st) in total federal per capita spending in the state. There is also less industry funding for higher education research in the state than elsewhere. State support is essential for the generation of additional federal and corporate research funding that will build and strengthen the research capabilities of the higher

education system, stimulating economic development and providing support for the state's public policy goals.

Research universities should seek greater support for research from the private sector.

The state should provide "matching grants" outside of the regular higher education funding structure to meet the requirements of external funding sources for research universities to compete for corporate and federal research grants and contracts.

Urban Revitalization

Identified as a priority by the State Development and Redevelopment Plan and the tri-state Regional Plan Association, urban revitalization is a significant source of future economic growth. The tri-state Regional Plan stresses that the economic health and quality of life of the entire metropolitan area will be determined by the strength of its urban centers. Without revitalization of the major cities, the once-strong region will not be able to compete in the global economy. Encouraging new growth in urban areas also helps to restore cities as cultural, commercial, and social centers, reducing some of the development pressures in suburban and rural areas.

Recognizing the vital role of New Jersey's cities, a number of institutions make urban revitalization a special part of their mission, addressing such issues as housing and education to stimulate the economy and enhance the quality of life in urban areas.

Because New Jersey's cities are vital to the state's future economic health and overall quality of life, urban revitalization should be a priority for higher education. The Commission and Presidents' Council should establish a committee to propose an incentive funding program to encourage increased collaboration among institutions and private enterprise to attract jobs and capital investment; assist and support redevelopment efforts; and provide educational programs, research, and public service that support the revitalization of the local economies. State incentive funding (with county support) should be provided in addition to regular higher education operating funds.

CRITICAL ISSUE FOUR:
COMMUNITY CIVILITY

The state's social well-being is threatened by the incidence of crime, family disorders, child abuse, spousal abuse, hunger, and homelessness. There is a need to develop a spirit of civility, cooperation, respect, and trust within families and among diverse religious, racial, ethnic, and cultural groups. Gender equity and acceptance of varying lifestyles are also essential.

Diversity

As New Jersey's population becomes increasingly diverse, the community of students, faculty, staff, and administration within the higher education system should reflect the state's rich tapestry of ethnic, cultural, and racial backgrounds. At the same time, both on campus and in the larger community, there is a need to bring together diverse populations and promote a sense of harmony and respect.

In an effort to make their campuses a model of cooperation and respect among diverse racial, ethnic, and cultural groups, many institutions celebrate the ethnic and cultural diversity of students and faculty, most often through courses and/or programs that focus on multicultural issues.

Institutions should strengthen programs and initiatives that enhance recruitment, retention, and advancement of minority students, faculty, staff, and administrators, thereby fostering diversity on campus.

Campus administrators, faculty members, and boards of trustees should provide strong leadership, both on campus and in the larger community, in an effort to foster a spirit of civility and respect between genders and among religious, racial, ethnic, and language groups. Institutions should stress knowledge and appreciation of diverse cultures as a value and offer academic programs and student services that invite students (at all levels) onto their campuses to celebrate the richness of various cultures.

Enhancing the State's Social Health

Many colleges and universities have service and student volunteer programs geared toward addressing the social needs of the community. Such programs are particularly prevalent in urban areas. Institutions also conduct social science research and scholarship focused on community stability and social needs. They provide public service to address issues such as hunger, homelessness, crime, substance abuse, and violence. Faculty members often provide assistance and consultation to community agencies on these and other issues.

Higher education institutions have the potential to play a significant cultural role in communities. In doing so they can enhance further a sense of community and social stability. In many cases, that potential is being realized and the community is uplifted by institutional performances, exhibits, and other cultural events. The wealth of talent and cultural experiences at colleges and universities should be further exploited.

The Presidents' Council should appoint a task force composed of community leaders and college and university faculty and staff to identify specific research, scholarship, and public service efforts that could be undertaken by higher education institutions to make substantial contributions to the social health of the state.

As a service to the community and a demonstration of the value of higher education, institutional cultural events and resources should be available to the public when possible.

Critical Issue Five: The Environment

Protection of the water supply, open space, and wildlife habitat; the conservation of energy; the safe disposal of solid and hazardous wastes; and the availability of clean air are critical to human health and the quality of life. Many complex issues arise from the connections that exist between the natural world and the activities of people — e.g., land development, population growth and distribution, transportation, industrial manufacturing, agricultural production, consumption and disposal of materials.

The state must deal with these issues in a balanced way, working to preserve the environment without overregulating business or jeopardizing economic development.

Environmental Preservation

Education and training programs can help to address environmental needs and concerns. Institutions of higher education recognize the importance of maintaining the environment and undertake sound practices such as recycling and energy conservation. Many colleges and universities offer educational programs dealing with the environment, and several conduct research into environmental issues. However, it is increasingly critical that leaders and the general public understand how environmental issues relate to the rest of human life. Higher education should play a central role in developing a new paradigm for thinking about the environment and incorporating it into its programs.

Environmental concerns cannot be adequately addressed unless they are treated in conjunction with such other factors as infrastructure, land use planning, economic development, community development, transportation, and manufacturing. One of the objectives of environmental education, therefore, should be to develop connections among issues such as health effects, economic factors, and global competitiveness. Environmental education in its comprehensive form should be embraced in the education of professionals, whether they are preparing for careers in policy formation, the sciences and engineering, journalism, economics, or business. And the basic principles should become an essential part of the way all college graduates think.

Higher education institutions should encourage a comprehensive approach to environmental education to prepare students to meet the competitive challenges of the global economy while providing future generations a clean and healthy environment. Institutions should also provide strong leadership on campus and within the larger community by setting a good example and encouraging students and citizens to take pride in their surroundings and protect the natural resources of the global ecosystem.

Developing Environmental Talent

With more Superfund sites than any other state, New Jersey has a need for professionals who are able to understand the complex interplay of traditional disciplines in addressing

environmental problems. Similarly, individuals who apply theoretical knowledge to the solution of real environmental needs and can interpret the issues for public officials and the general public are in high demand. The higher education community should play a major role in providing this type of talent for the state.

Selected institutions should go beyond the heightening of environmental awareness among members of the institutional community and the general public to train persons who can bridge the gap between laboratory, landfill, and public understanding of environmental issues. Individuals so trained can provide leadership in resolving environmental problems characterized by complex scientific, political, and economic issues.

Critical Issue Six:
Health & Health Care

Health and health care issues are of central importance to all citizens. Drug and alcohol abuse threaten both the health and well-being of those directly involved, as well as society as a whole, which is affected by related crimes and lost productivity. Unfunded medical care seriously threatens the health care industry, particularly those components operating in urban or other less affluent areas.

Institutions in all sectors offer training and preparation for health care careers ranging from technicians and assistants to medical specialists. UMDNJ has special responsibilities for medical, dental, and allied health programs and research; the university also provides direct patient care. Health care research, including biomedical and pharmaceutical research, is a priority at several research universities.

Recognizing the growing problems of substance abuse and violence, several institutions offer special programs to train professionals in these areas. Nearly all offer substance abuse counseling and other services to their students.

A few institutions make a special effort to provide health information to the community, and

the health sciences university offers direct patient care at four core teaching hospitals, as well as at a number of other affiliated hospitals.

Medical and Allied Health Programs

Ongoing changes in medical practice, government programs, and the health needs of citizens create significant challenges and suggest that the state may soon face a surplus of physicians and hospital beds. Changes in Medicare and Medicaid also influence the demand for medical residents at hospitals. These factors affect the numbers and types of educational programs needed for physicians, at both the undergraduate and graduate medical education level, and for other health professionals.

Based on recommendations by the Advisory Graduate Medical Education Council, there should be a statewide initiative to reduce the overall number of medical residents, increase the percent of residency positions filled by U.S. medical graduates, and achieve an appropriate balance between primary and specialty care. Teaching hospitals should reduce reliance on medical residents as low-cost providers and seek other ways to provide cost-effective services.

Institutions should reexamine and prioritize instructional health care programs and continue coordination with other institutions to ensure that programs are cost-effective and that offerings address the state's health care needs. Preparation of students should emphasize primary care and allied health programs such as nurse practitioner and physician assistant.

Preventative Health Care

Major changes in the health care delivery system make it imperative that we develop new and more proactive approaches to wellness. Colleges and universities must not only provide information about disease prevention and healthy lifestyles, but must also prepare new types of professionals who can augment the roles played by traditional health care providers. Such individuals need cross-disciplinary knowledge and an understanding of the complex medical, ethical, social, and economic issues surrounding health care delivery and wellness promotion.

Recognizing the changes occurring in the health care delivery system, especially the evolving focus on health and wellness promotion, selected institutions should provide cross-disciplinary training in education, social work, and health care to a cadre of persons who can work with traditional providers to maximize the effectiveness and efficiency of the system.

Substance Abuse Prevention

Young people (18-30 years old) often solidify patterns of alcohol and other drug abuse that will persist throughout their life spans. New Jersey colleges and universities increasingly offer programs and services to address these problems.

Efforts should be enhanced to empower young adults to establish healthy lifestyles as responsible and contributing adults in their communities without the misuse of alcohol, tobacco, or drugs.

ESSENTIAL CONDITIONS FOR ACHIEVING THE VISION

To accomplish the recommendations related to the state's critical needs and achieve the vision of excellence for higher education, certain basic conditions are essential. These include adequate and predictable state funding, clearly focused and differentiated institutional missions, institutional and systemwide accountability, a well-developed technology infrastructure, and coordinated advocacy.

The participation of many constituencies, including the Governor and Legislature, the Commission on Higher Education, student assistance policy boards and administrators, county executives and freeholders, institutional boards of trustees, presidents, faculty, staff, and students, is necessary to ensure these essential conditions as discussed below.

The Funding Partnership for Operating Costs

Affordability and access are perhaps the greatest concerns of parents, students, and the public with regard to quality higher education. It is generally understood that advanced education is a gateway to an improved standard of living, but costs have become greater than many citizens can afford. Increases in tuition and required fees are the primary cause of concern.

Affordable, accessible higher education of quality is contingent upon an appropriate partnership of shared responsibility among students and their families, the government, and institutions. Adequate, predictable student assistance and operating and capital support are essential to keeping tuition and fees affordable and sustaining quality.

However, across the nation, as states struggle with limited resources and the rising cost of government, higher education faces fierce competition for scarce discretionary funding. For example, in New Jersey, as in the rest of the nation, mandatory health-related, debt-related, and correctional expenditures continue to grow in real terms. Mandatory spending for elementary and secondary education in New Jersey may also grow in real terms, depending on the state's response to the *Abbott v. Burke* decision. These expenditures reduce discretionary state funding for higher education and other areas.

Significant increases in tuition and fees at public institutions are directly related to the scarcity of state resources because the revenue to support higher education comes primarily from state or county appropriations and student tuition and fees. However, colleges will not be able to offset totally the low growth in government support by increasing revenue from tuition and fees. They will have to be increasingly diligent in holding down costs, enhancing instructional productivity, and collaborating with their peers, as well as raising external funds.

Both institutional cost containment and sufficient state funding are essential to ensure quality, affordability, and access. The state currently provides higher-than-average support per student attending public institutions. Yet, a growing share of the cost of college rests with students and their families, threatening access and affordability. Despite the limited growth in state resources, additional investments in higher education are critical to the future economic and societal well-being of the state. The investment in higher education pays off in increased state revenues, lower crime rates, and higher levels of employment.

Currently, when adjusted for interstate cost of living differences, New Jersey ranks in the top one-third nationally in state support per student. Tuition and fees charged by four-year independent institutions in New Jersey are below the national average when adjusted. However, at the state's public four-year colleges tuition and fees are somewhat above the national average, and tuition and fees at the state's community colleges are over 40% above the national average.

In October 1995, the Commission on Higher Education adopted recommendations for funding higher education. Those recommendations address the issue of shared costs and are directly related to affordable, accessible higher education.

From a systemwide perspective, long-standing policies regarding a cost-sharing partnership between the state and students and their families should continue based on the significant benefit of education to both the student and society.

The state must provide adequate and predictable funding for higher education to ensure the quality of its colleges and universities.

For senior public institutions (with the exception of UMDNJ and Thomas Edison State College, which have special funding circumstances), the state should provide two-thirds of educational operating costs, while students and their families provide one-third. At community colleges, the state, the counties, and students and their families should each provide one-third of operating costs. Further, in order to help maintain a strong independent sector that offers both access and choice, the state should continue its commitment to provide funds under the Independent College and University Assistance Act.

The funding shares of the respective partners should be reached by increasing state contributions to institutional base budgets over the next several years while limiting tuition increases in order to reach a two-thirds state share for senior public institutions and a one-third state share for community colleges. Funding for the independent institutions should increase gradually to the statutory level.

The results of this recommendation are impossible to predict precisely because each change in the higher education budget affects the overall outcome. Using one point in time, fiscal year 1995, the year for which the most recent cost data are available, community college costs were distributed so that the state covered 24%, the counties 34%, and students 42%. If those costs were redistributed over a seven-year period to move toward a one-third share of the costs for each partner, the annual increase in the state's contribution would be $12 million and the annual increase in counties' contribution would be $5 million, while holding the students' contribution constant. These projections reflect an average annual increase of 3.3% in overall community college budgets with an annual 8.3% increase by the state and a 3% increase by the counties.

At the senior public institutions (excluding UMDNJ and Thomas Edison State College) in fiscal year 1995 the state paid 64% of the costs and tuition and fees covered 36%. To bring the state's share of the costs to two-thirds requires an increase of approximately $14.7 million a year over the next seven years, while holding tuition and fees constant. The annual spending increase for the senior public institutions would be 1.28%, with the state increasing its support by 1.97% a year. State funding for the independent institutions would need to increase by approximately $1 million a year, 5% of the fiscal year 1997 appropriation, over the same time period to meet the statutory level.

State Student Assistance Funding

Adequate support for student assistance programs is also fundamental to maintaining affordable higher education. As states struggle with rising higher education costs, there is growing uncertainty regarding federal support for student assistance. While federal loans have become more accessible, grants have decreased. The resulting increase in student and family indebtedness, combined with rising costs of both private and public higher education, threatens access to higher education. In this context, state student assistance programs play an even more critical role in maintaining affordability. Before adjusting for regional cost

differences, New Jersey ranks in the top one-third nationally in state need-based aid per student, indicating a commitment to needy residents.

State support for student assistance programs should be continued for full-time, undergraduate students to maintain affordability, access, and choice, and assistance for part-time students should be explored. Annual state appropriations for the state's primary financial assistance programs, Tuition Aid Grants and the Educational Opportunity Fund program, should recognize annual increases in tuition, required fees, and other costs, and the respective policy boards should strive to contain costs while achieving desired outcomes.

Facilities

Preserving the facilities infrastructure is critical to educating the populace, to recruiting and retaining students, and to the overall quality of higher education. Due to limited increases in institutional operating budgets and a lack of regular and adequate state commitment to investments in facilities maintenance and renewal, deferred maintenance on the state's public college and university campuses has reached serious proportions.

The state should implement the Commission on Higher Education's recommendations for a five-year facility renewal program for the senior public institutions and an increase in the state bond authorization level for the community college Chapter 12 program.

Mission Differentiation, Program Development, and Collaboration

Achieving quality within reasonable budget constraints will increasingly require each institution to reexamine its mission and programs to ensure their responsiveness, fiscal viability, and quality. Because state resources are limited, increased program development should occur only within a well-articulated statewide planning context, and institutional missions should be clearly focused and differentiated. In seeking to meet the state's needs without sacrificing quality, institutions should avoid growth beyond the level that either the market or the state's resources can sustain.

In order to utilize limited state funding most effectively, expansion of institutional missions beyond their current scope should be considered only in the context of demonstrated statewide needs, as well as program and institutional quality. Institutions should offer new programs based on demonstrated need, and they should eliminate mediocre programs or programs of low priority as a means of internally reallocating resources to programs of high quality and priority. Expansion of programs should not erode the quality of ongoing programs.

Institutions of different types and from different sectors and locations should be alert to opportunities for partnerships, resource sharing, and coordination in program development and delivery, recognizing that complementary programs and services serve students effectively and economically.

Accountability

Accountability is expected of all parties responsible for higher education. A higher degree of institutional autonomy requires a higher degree of institutional accountability. Annual institutional reports inform the public and state policy makers about the condition and progress of individual institutions, while the Commission's accountability report provides systemwide data to inform planning and policy development. Although performance indicators for higher education are in an early stage of development, efforts are progressing at the national level to define indicators that accurately reflect the varying missions of different types of higher education institutions. At the state level, the Commission on Higher Education is working with the Presidents' Council to develop enhanced cost accounting and outcome data in order to generate accurate and consistent information regarding institutional expenditures for systemwide planning and future budgeting decisions.

As part of their continual effort to strive for excellence, effectiveness, and efficiency, institutions should increase their use of performance indicators as measures of progress toward institutionally defined goals, consistent with their mission as well as state needs. These goals should be related to benchmarks defined as the best outcomes of similar institutions both within and outside of the state.

Enhanced cost accounting and outcome data should be included in annual accountability reports and should inform statewide planning and budget decisions.

Technology

Technology and institutional infrastructure will be increasingly critical to research, teaching, and the well-being of the entire higher education system. More students will enter college with extensive information network experience, and these students and the public will expect to be interconnected for interactive video, data, and multimedia functions. Consortial arrangements and distance education will result in delivery of higher education beyond campus, state, and national borders.

Developments in telecommunications and networking technologies, coupled with the increasing demand for distance learning opportunities, present campus and systemwide challenges and opportunities. Effective use of new technologies will require coordination of services, an investment in capital infrastructure, and training for faculty, students, and staff.

The Commission on Higher Education should appoint a task force composed of leaders within the telecommunications industry, Commission and Presidents' Council members or their designees, and representatives from other state agencies (e.g., the Department of Education) and from libraries statewide to make recommendations regarding:

- **how to make infrastructure financial investment decisions;**
- **how to deal with recurring costs;**
- **how to resolve technology issues;**
- **how to share technology-based courses among colleges;**
- **who should grant distance learning degrees;**
- **what are appropriate criteria for licensing distance learning programs;**
- **how to count students who are simultaneously enrolled at more than one institution; and**
- **how to manage long-term planning, taking into account funding questions and varying perspectives.**

In addition, the Presidents' Council should develop a plan for regional centers for the higher-order preparation of faculty in the use of technology.

Advocacy

The state's ability to provide affordable, accessible, high-quality higher education in New Jersey is heavily dependent on public support as well as on institutional cost efficiencies. Recognizing the structural imbalance between state revenues and expenditures and the increasing demands for state mandatory expenditures, effective advocacy for higher education is essential.

In fall 1996, the Commission on Higher Education and the Presidents' Council should develop a coordinated advocacy plan that communicates higher education's contributions to the state, demonstrating the benefits of long-term investments in higher education. The advocacy plan should include the development of a higher education coalition inclusive of the various supporters of higher education to assist in implementation of the plan.

CONCLUSION

Looking to the New Millennium: New Jersey's Plan for Higher Education was nearly two years in the making. The Steering Committee consulted with hundreds of individuals and groups from across the state, both within and outside of higher education. This process of consultation greatly enriched the plan, which addresses the policy issues viewed by New Jersey citizens as most important to the state. The issues identified as critical to New Jersey often reflect concerns found across the United States.

New Jersey aspires to a world class system of higher education. That aspiration can be achieved when institutional priorities are connected to public priorities to meet the needs of students, employers, citizens, and their communities. If the significant investment in higher education is to pay high returns for both individuals and society, responsibility for achieving excellence must be shared by the multiple constituencies that make up higher education. The blueprint for an excellent system of higher education is found in the vision, characteristics, issues and recommendations; to give life to these aspirations the higher education community, supported by the public and political leaders, must take action.